For decades, companies had the luxury of a “ready, set, go” mentality when incorporating new technologies. Each was phased in, tested extensively before broad-based corporate use. Innovation took preparation and time.

No longer do companies have months or years to “get ready” for these new initiatives that promote growth. More often, they must plunge in and learn as they go—or risk being left so far behind they cannot catch up. Some waves of technology are more broadly disruptive than others. Artificial Intelligence, or AI, is a perfect example.

Technology waves are compressing

1. Mainframe
2. Client-Server and PCs
3. Web 1.0 eCommerce
4. Web 2.0, Cloud, Mobile
5. Big Data, Analytics, Visualization
6. IoT and Smart Machines
7. Artificial Intelligence
8. Quantum Computing

Source: Accenture 2017
Accenture Strategy surveyed 1,100 executives across the globe to gauge AI adoption, the technology’s use in the enterprise, and its role in driving value. Our results show that companies know that AI is a critical piece of their competitive strategy moving forward. However, less than half (45 percent) say they have deployed fully sustainable AI programs that are delivering benefits as planned.¹ That leaves more than half of all companies (53 percent) in pilot mode or early stage adoption, not yet reaping benefits. The remaining 2 percent are not even in the starting blocks. Across industries and geographies, we see a significant deployment gap. Despite companies’ acknowledgement of AI’s importance, many are stalled in making it a key enabler for their strategy.

From the early stages of AI adoption and beyond, many companies are either stopped in their tracks or slowed due to several obstacles that range from data, to talent, to the technologies themselves. When addressed, each of these perceived stumbling blocks can also be a key enabler of AI benefits.

Despite companies’ acknowledgement of AI’s importance, many are stalled in making it a key enabler for their strategy.

The way in which companies handle these potential obstacles on the road to enterprise adoption spells success or failure—rapid incremental progress versus corporate paralysis. And momentum matters. While companies clearly recognize the potential of AI, and are getting beyond the hype, they must still quickly make their way around these obstacles to realize true value. Driving value from AI investments is as much about agility as it is readiness. While AI provides unique abilities to open new markets and create new revenue streams, its benefits are maximized when implemented at scale across an enterprise. We refer to this large scale adoption as Applied Intelligence.
AI leaders and laggards seem to be struggling equally in this area. The major difference is that leaders—those companies already prioritizing AI and/or deploying sustainable AI programs—still say they are reaping benefits from AI even as they face AI-related challenges—mainly because their early efforts have helped them to learn and build an enterprise capability around AI. They then leverage that learning to support the next AI effort. This ability to course-correct helps create the required momentum to scale AI. The leader approach fosters the rapid experimentation needed to build a sustainable advantage.

Laggards are anticipating myriad issues and trying to solve all problems before implementing at a larger scale. Their approach is a slow lane companies travel as their AI-fueled competitors pass them on the fast track.

**Leaders are deriving benefits as expected**

<table>
<thead>
<tr>
<th>LAGGARDS</th>
<th>LEADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have not yet deployed sustainable, enterprise AI programs</td>
<td>Have deployed sustainable AI programs that are delivering benefits</td>
</tr>
<tr>
<td><strong>AND/OR</strong></td>
<td><strong>AND/OR</strong></td>
</tr>
<tr>
<td>Have not yet prioritized AI and don’t expect to for 3+ years</td>
<td>Have prioritized strategic AI initiatives</td>
</tr>
</tbody>
</table>
Leaders in AI deployment see significantly more benefit in five areas than their peers who are not as far along in deployment. Initial results indicate that the farther along the deployment maturity curve a company goes, the more value it can reap from its AI investments.

**Leaders in AI deployment benefit across 5 key areas**

- **Talent Recruitment**: Leaders 45% vs Laggards 29%
- **Sales and Marketing**: Leaders 52% vs Laggards 38%
- **Finance**: Leaders 35% vs Laggards 22%
- **Commercial Products & Services**: Leaders 47% vs Laggards 40%
- **Customer Service**: Leaders 61% vs Laggards 54%

**Comparative Analysis**

Leads in AI deployment compared to Laggards:
- **Talent Recruitment**: Leaders 45% vs Laggards 29%
- **Sales and Marketing**: Leaders 52% vs Laggards 38%
- **Finance**: Leaders 35% vs Laggards 22%
- **Commercial Products & Services**: Leaders 47% vs Laggards 40%
- **Customer Service**: Leaders 61% vs Laggards 54%

*Comparisons made between leaders - companies deploying sustainable AI programs that deliver value - and laggards - companies deploying pilot initiatives only.*
Nearly seven out of 10 companies claim AI is one of their top three strategic priorities now or within the next year. Over the next three years, the needle jumps to nine in 10 companies. But fewer than half (45 percent) have deployed a sustainable AI program, while only about one in 10 have begun pilot initiatives.

**A deployment gap exists between AI’s strategic relevance and actual execution**

- Deployed sustainable AI programs; delivering benefits: 45%
- Early stages of AI investments; benefits not seen: 41%
- Pilot initiatives only: 12%
- No AI initiatives but plan to have in next year: 2%

If AI is truly a priority, then broad use should be more common. Less than 50 percent of survey respondents are using AI strategically throughout the organization. Instead, they are implementing the technology in silos or discrete projects. That approach won’t get them to value.
Going from analysis to coordinated action requires an integrated effort led from the top and driven by the front lines of management. Responsiveness, speed and experimentation are critical to success.

Investment across the company is also key. A third of companies (31 percent) feel strongly that it’s too early to invest in AI, thinking they can make up for lost time by simply shifting resources to accelerate adoption at a later date. But we see fast followers lose critical intelligence-building time and learning. Both can be hard to make up. Companies’ hesitance can put them at an immediate disadvantage due to the learning nature of AI and data. And even those who say it’s too early simultaneously acknowledge AI’s disruptive impacts.

**AI: Disruption or opportunity?**

**AI will:**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create new categories of products, business models and markets</td>
<td>38%</td>
<td>47%</td>
</tr>
<tr>
<td>Transform the workforce; good for business and employees</td>
<td>35%</td>
<td>46%</td>
</tr>
<tr>
<td>Disrupt my industry and change the nature of competition</td>
<td>33%</td>
<td>45%</td>
</tr>
<tr>
<td>Put my business at a severe competitive disadvantage if I don’t implement</td>
<td>32%</td>
<td>44%</td>
</tr>
<tr>
<td>Too early to invest</td>
<td>31%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Strongly Agree  Agree
Given what executives acknowledge about AI and its impacts, hesitance in creating sustainable AI programs means companies are missing opportunities. Eight out of 10 companies (78 percent) recognize AI will disrupt their industry in the next 10 years. A full three-quarters of companies recognize it as a competitive advantage, fearing that more advanced competitors will overtake them. Nearly nine out of 10 companies (85 percent) expect AI to open new categories of products, services, business models and markets.

If company leaders are aware of these facts, why are they hesitating to implement AI enterprise-wide? Our survey suggests that the gap between executives’ understanding of AI’s potential and hesitance to invest is largely driven by data issues. Followed closely by real or perceived challenges with AI technologies and organizational culture, executives haven’t yet overcome these obstacles to start or sustain significant AI initiatives.

**Which industries expect to see the greatest disruption and opportunities from AI?**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Greatest Disruption</th>
<th>New Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Transportation</td>
<td>88%</td>
<td>90%</td>
</tr>
<tr>
<td>Healthcare Provider</td>
<td>88%</td>
<td>88%</td>
</tr>
</tbody>
</table>

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<tr>
<td>Health Payers</td>
<td>90%</td>
<td>88%</td>
</tr>
<tr>
<td>Communications</td>
<td>88%</td>
<td></td>
</tr>
</tbody>
</table>
Companies that move quickly from analyzing AI to acting on AI can reap significant growth and value. AI technologies have the potential to increase economic output across industries through 2035 by trillions of dollars.²

**AI steady state increases economic output by trillions across industries**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Baseline</th>
<th>AI steady state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>8.4</td>
<td>12.2</td>
</tr>
<tr>
<td>Professional Services</td>
<td>7.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>6.2</td>
<td>8.4</td>
</tr>
<tr>
<td>Public Services</td>
<td>4.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Information &amp; Communications</td>
<td>3.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Financial Services</td>
<td>3.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Construction</td>
<td>2.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Transportation &amp; Storage</td>
<td>2.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Healthcare</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Accommodation &amp; Food Services</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Social Services</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Education</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Agriculture, Forestry &amp; Fishing</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Other Services</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Arts, Entertainment &amp; Recreation</td>
<td>0.45</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Real GVA (gross value added) in 2035 (US$ trillions)

To reap this value, though, company leaders need to ensure AI is built into the foundation of their operating model. We see an increasing number of companies move toward making it a driver for growth and
value by utilizing it in almost equal measure internally and externally. Avoiding silos and the bifurcation that comes from applying AI in discrete areas is key to generating full value.

Over the next three years, executives indicate their companies will focus on a variety of AI initiatives to drive value. While all are useful, the ones that will have the most far-reaching effects apply AI to cause a shift to the business model or exploit completely new markets and products. That requires seeing AI as a transformative capability rather than simply a technology.

**AI value drivers over the next three years**

<table>
<thead>
<tr>
<th>Driver</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase customer satisfaction/retention attraction</td>
<td>57%</td>
</tr>
<tr>
<td>Accelerate new products and services we take to market</td>
<td>56%</td>
</tr>
<tr>
<td>Exploit new market or product opportunities</td>
<td>53%</td>
</tr>
<tr>
<td>Cause a shift/change to the business model</td>
<td>48%</td>
</tr>
</tbody>
</table>

The business model shift is key because AI is of most value in driving growth when a company uses it to do new things versus doing the same things, only better. For instance, applying AI to virtual customer service agents in an off-the-shelf solution is helpful in terms of cost efficiencies. But, as more companies do this same thing, it’s not differentiating. What if instead a company used AI to transform its customer experience, offering something completely new? The latter, while it may feel riskier, brings far more competitive value.

If executives view AI as just another new technology solution to implement, they will reap some benefit but will likely miss the most significant growth and value opportunities. Those who instead view incorporating AI as building a new long-term capability have the best chance to transform their organizations for competitive advantage.
OBSTACLES OR ENABLERS?
IT DEPENDS ON YOUR APPROACH

The major obstacles companies cite to AI mastery are also the major enablers of AI success. Data, AI expertise (or lack thereof) and organizational issues can delay implementation unless addressed with an agile company’s learning mindset. With that mindset, these challenges can quickly become enablers of AI, even if addressing them happens through an iterative approach.

For example, data is cited most often as the reason companies lag in AI deployment. Creating an agile, integrated data strategy may be the linchpin to leapfrogging from AI laggard to leader.

Almost half of all companies have data quality issues

More than a third have insufficient usable training data

Data exists in silos at more than a third of companies

48% 36% 35%

DATA QUALITY LACK OF TRAINING DATA DATA EXIST IN SILOS
These numbers are higher in some cases for leaders already deploying sustainable AI programs—proving that these challenges do not have to delay benefits. There may be interim roadblocks along the path to broad AI implementation, but leaders still say they are realizing value. Instead of waiting for the perfect data strategy to materialize, leaders tend to use smaller data sets and adjust strategy as they progress and learn. In the case of executing strategic AI programs where time is of the essence, it is crucial to not let data constraints or concerns paralyze the organization.

Beyond data, support systems and training are more necessary than some companies have anticipated. For instance, nearly four out of 10 companies report AI technology integration issues with their current infrastructure, as well as a lack of expertise in AI technologies.

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**There may be interim roadblocks along the path to broad AI implementation, but leaders still say they are realizing value.**
CREATING THE AI MOMENTUM MINDSET

With AI—as with any new transformative technology—there really is no ideal ready state anymore. Most companies must begin to build AI capabilities into their business as these capabilities are maturing, rather than taking a wait-and-see approach. Leaders do not get to competitive differentiation by refusing to take a risk or hesitating to transform.

Our research shows that leaders who are deploying AI to their strategic advantage are doing a few common things right:

**LEADERS UNDERSTAND AI IS MORE THAN JUST A TOOL OR TECHNOLOGY.**

The majority of companies we surveyed recognize that AI will disrupt their industry. The true value of AI lies in building a foundation of capabilities that accelerate AI opportunities inside and outside the organization. The winning mindset sees AI as more than just a technology.

**LEADERS EXPERIMENT AND LEARN.**

The more data companies feed AI over time, the smarter it gets. This fact eliminates some of the advantages fast followers have reaped with previous technologies. There is no better time to start than now. With fewer than half of companies having a sustainable AI program, the competitive window of opportunity is still open.

**LEADERS TURN OBSTACLES INTO OPPORTUNITIES.**

Data quality and availability issues can stall AI, but they don’t have to. Leaders use these challenges to fuel an AI-driven insight capability. They do not shy away from a continuous, iterative approach.
If your company has not yet redefined readiness, it is not alone. But don’t let organizational issues make your business an AI adoption laggard. The potential value and growth that AI, as well as Applied Intelligence, can bring when leveraged across the enterprise is a compelling proposition.

Finding a more agile way of approaching AI—which includes adopting a momentum mindset as well as converting obstacles into opportunities—may be what is necessary to place your company among the leaders in unlocking new sources of growth from AI. A few organizations are already on their way, driven by their strategic business objectives. If you act now, your company can still meet—or even better, beat—them there.
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NOTES
1. All data is sourced from the 2017 Accenture Strategy Tech-led change (AI) research study unless otherwise noted.

ABOUT THE RESEARCH
Accenture Strategy surveyed 1,100 C-Suite executives in 2017, representing 13 industries in seven countries. We explored strategic areas and opportunities where companies are harnessing technology, including AI, to increase business value.

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